

REMARKS

Claims 1-9 and 11-13 are currently active in the case. Reconsideration is respectfully requested.

The present invention relates to a composition of water-soluble copolymers.

Prior Art Rejection

Claims 1-9, 11 and 12 stand rejected based on 35 USC 102 or 103 as anticipated by or rendered obvious over Galleguillos, U.S. Patent 6,361,768. This ground of rejection is respectfully traversed.

The present invention claims a water-soluble copolymer that consists essentially of two non-optional monomer components (a) and (b). Component (a) constitutes 60 to 99 % by wt of the polymer that is formed and is at least one monoethyleneically unsaturated polyalkylene oxide of formula (I) which in particular is characterized by an oligoalkyleneoxy group (minimum 6 alkyleneoxy radicals). The terminal position denoted by R³ is hydrogen or a type of hydrocarbyl group. In the Galleguillos patent component (a) does not show any embodiment of their anionic polymer (a) that is within the scope of the unsaturated monomer of formula (I) of the present claims, even the (alk)acrylate (oxyalkylene containing) monomer of lines 10-20 of column 5. (The formula shown describes ethyleneoxy and propyleneoxy chains, but in these embodiments as written, the terminal groups are actually carbonic acid groups and not carboxylic acid groups. It is not believed that patentee intends terminal carbonic acid groups.) The embodiments of component (a) shown in the patent are not within the scope of the invention as claimed. Further, anionic monomer component (a) of the patent is a significant polymer component in that it is present in an amount ranging from 0.05 to 20 mole % of the water soluble polymer produced. Accordingly, because of the necessary

presence of monomer (a) of the patent in the mixture of monomers, the presently claimed copolymer is distinct from that described in Galleguillos.

Monomer component (b) of the patent, which is present in an amount ranging from 10 to 45 mole %, is described as a cationic monomer and includes some monomer types that are within the scope of monomer (b) of the present claims which is present in an amount of 1 to 40 % by .

Monomer component (c) of the present claims, which is optionally present, can be present in an amount of not greater than 39 % by wt. It is described as a non-ionic, monoethylenically unsaturated monomer of the individual types disclosed on pages 6 and 7 of the specification. These monomer examples show that the monomer (c) is non-hydrophilic. On the other hand, monomer (c) of the patent, as described in columns 7 and 8, while non-ionic, are hydrophilic. What appears to be the major monomer component of the copolymer of the patent is monomer (c) (present in an amount of 35 to about 95 mol %) which is said to be at least one non-ionic hydrophilic monomer.

Finally, monomer component (d) of the present claims is an anionic monoethylenically unsaturated monomer which is hydrophilic as is monomer (a) of the patent.

In view of the Examiner's comments it appears that a conclusion of obviousness has been reached with respect to the present invention by arbitrary selections of monomers from monomer groups (c) and (b) of the patent by utilizing the teachings of the present invention in hindsight. Nowhere present in the Examiner's discussion is an explanation in the outstanding Office Action of how or why, in arriving at the present invention, no mention is made whatever to monomer (a) of the patent, which is an essential component of patentees disclosed copolymer, and why it is omitted from consideration. In fact, the Examiner's holding of obviousness is based entirely on monomer selection from just two monomer types

(b) and (c). However, in the case of the selection of a cationic monomer (b), why would one of skill in the art be led to specifically select on of the monomers from subparagraph (4) out of all of the other monomer subgroups for component (b) that are cationic. Also, with respect to the selection of only the methoxypolyethylene oxide (col 7, line 58), why would one of skill only select this monomer over other monomer types of monomer (c) which are non-ionic, but hydrophilic, after which selection a sufficient and full monomer selection has been made which happens to coincide with the language of the present claims with respect to components (a) and (b). In fact, many monomers of different types are described in column 7 which do not qualify as being within the scope of monomer (a) of the present claims. (Note also the description in line 63 of column 7 of the terminal group OH, which, if correct, would make the alkoxyated monomer a peroxide which does not seem what patentees intend.) In view of the several differences between the description of the monomer mixture of the present claims and the discussion in Galleguillos, it is clear that any holding of obviousness is based on hindsight reasoning which is improper. Moreover, it is clear that Galleguillos does not anticipate the invention as claimed. Withdrawal of the rejection is respectfully requested.

For the reasons discussed above, the rejection of the claims based on obviousness grounds that has been raised in view of Galleguillos is believed overcome.

Claim 13 stand rejected based on 35 USC 102 or 103 as anticipated by or rendered obvious over Morschhäuser et al, U.S. Patent 6,645,476. This ground of rejection is respectfully traversed.

As previously discussed on the record, Morschhäuser et al describes a water-soluble polymer preparation which is useful in cosmetic and pharmaceutical applications. The composition is comprised of a polymer that is prepared by the copolymerization of two macromonomers (A) and (B). Macromonomer (A) of the patent corresponds to monomer component (a) of the present claims. However, it must be noted in light of the amendment

made to the description of monomer (a) of the present claims that the terminal alkyl group on the ethoxylate portion of the (meth)acrylic ester component (A) of the patent is terminated by alkyl that contains a minimum of 10 carbon atoms. On the other hand, component (a) of the present claims is limited, in the event that substituent R³ is alkyl, to alkyl groups that range in carbon atom content from 1 to 4 as shown on page 3, line 34. Thus, the disclosure of the patent does not anticipate the present invention, and the description of macromonomer component (A) in column 3 does not suggest the presently claimed range of 1 to 4 carbon atoms. Accordingly, the presently claimed invention is believed to be neither anticipated nor rendered obvious in view of the cited patent. Withdrawal of the rejection is respectfully requested.

It is believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

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